WHAT IS CLAIMED IS:

1. A magnetic memory medium characterized in comprising:

substrate on which groove and land are formed;

magnetic film laminated on said substrate; and

non-magnetic film deposited on said magnetic film on said groove up to the position higher than the land of substrate.

2. A magnetic recording medium according to claim 1, characterized in that said non-magnetic film on the groove is deposited up to the height almost identical to said magnetic film on the land.

3. A magnetic memory medium according to claim 1, characterized in that said non-magnetic film is formed of a material having the melting point which is lower than that of material of said magnetic film.

4. A magnetic memory medium according to claim 3, characterized in that said non-magnetic film includes at least Te.

5. A magnetic memory medium according to claim 1, characterized in that the level difference between the groove and land at the upper most surface is 5 nm or less.

6. A method of manufacturing a magnetic memory medium characterized in comprising the steps of:

laminating a magnetic film on a substrate where the groove and land are formed;

laminating a non-magnetic film on said magnetic film; and

heating said non-magnetic film up to the temperature higher than the melting point of said non-magnetic film.

7. A method of manufacturing a magnetic memory medium according to claim 6, characterized in that said non-magnetic film is laminated in the thickness expressed as (groove width/land width) × groove depth.

8. A method of manufacturing a magnetic memory medium according to claim 6, characterized in that a material having the melting point which is lower than that of said magnetic film is deposited as said non-magnetic film.

9. A method of manufacturing a magnetic memory medium according to claim 6, characterized in that said non-magnetic film is heated with a laser beam.

10. A magnetic memory medium according to claim 9 characterized in that a material including at least Te is laminated on said magnetic film as said non-magnetic film.

11. A magnetic disc apparatus characterized in comprising:

magnetic disc including a substrate on which groove and land are formed, a magnetic film laminated on said substrate and a non-magnetic film deposited up to the height higher than the land of said substrate on said

magnetic film on said groove;

spindle motor for rotating said magnetic disc;

head for writing or reading data to or from said magnetic disc; and

actuator for moving said head in the radius direction of said magnetic disc.

12. A magnetic disc apparatus according to claim 11, characterized in that said non-magnetic film on the groove of said magnetic disc is deposited up to the height almost identical to said magnetic film on the land.